



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/543,071

05/23/2006

Francois Bancel

3338.78US01

1093

24113

7590

10/10/2008

PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A.

4800 IDS CENTER

80 SOUTH 8TH STREET

MINNEAPOLIS, MN 55402-2100

EXAMINER

BON, MING Y

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

10/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/543,071

Applicant(s)

BANCEL, FRANCOIS

Examiner

MING HON

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 23 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saund USPN 6517266 and in view of Kubo et al. USPN 6460958 hereinafter referred to as Kubo and Hanaoka USPN 7256900.**

3. As per Claim 1, Saund teaches a device adapted to print an image on a large surface, the device comprising: dye transferring means for transferring a dye transfer on a large surface; (Saund, Column 1, Lines 44-48, dye transferring is printing with ink)

at least one handling means for allowing an operator to handle the device to reproduce an image on the large surface; (Saund, Column 1, Lines 44-48, the device is hand-held therefore the operator has a handling means)

position determining means for determining a position of the device position on a plane of the large surface; (Saund, Column 1, Lines 63-65)

wherein the direction determining means, the position determining means and the projecting means cooperate with the dye transferring means to match the dye transfer with the device position and direction on the large surface. (Saund, Column 2, Lines 2-5)

Saund does not teach direction determining means for determining a direction of the device on the plane of the large surface; However Hanaoka teaches it. (Hanaoka, Column 5, Lines 30-36)

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Hanaoka into Saund. Saund teaches hand-held printing the image from storage unit onto a surface. Saund uses a global position system to determine the device location however when printing on a large surface requires movement of the printer therefore the system will benefit from the global position system along with a gyroscope as taught by Hanaoka.

Saund does not teach and projecting means for projecting a coordinate system; However Kubo teaches it. (Kubo, Column 20, Lines 25-35)

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Kubo into Saund. Saund teaches printing the image from storage unit onto a surface. Saund however does not consider the image and the processing it may require in order to become suitable for printing. Kubo teaches the use of projecting a 3-dimensional object onto a coordinate plane to be able to print the object in 2-dimensions.

Therefore it would have been obvious to one of ordinary skill to combine the three references to obtain the invention in Claim 1.

4. As per Claim 2, Saund in view of Kubo and Hanaoka teaches the device of claim 1, wherein the position determining means comprise an optical sensor adapted to read a grill covering the large surface. (Saund, Figure 5, Components 370 and Column 8, Lines 66-67 the glyph marks on the surface resembles a grill, glyph marks are used to help print the image on the surface and are optically read)

Analysis is analogous to that made in Claim 1.

5. As per Claim 3, Saund in view of Kubo and Hanaoka teaches the device of claim 2, wherein each grill crossing is associated with position data read by the sensor. (Saund, Column 8, Lines 10-14)
Analysis is analogous to that made in Claim 2.

6. As per Claim 4, Saund in view of Kubo and Hanaoka teaches the device of claim 1, wherein the position determining means comprise an optical sensor adapted to read position data on the large surface. (Saund, Column 8, Lines 66-67 and Column 9, Lines 3-5)
Analysis is analogous to that made in Claim 1.

7. As per Claim 5, Saund in view of Kubo and Hanaoka teaches the device of claim 1, wherein the position and direction determining means comprise localizing means, and wherein the localizing means comprise an ultrasonic receiver. (Saund, Column 8, Lines 52-56)
Analysis is analogous to that made in Claim 1.

8. As per Claim 6, Saund in view of Kubo and Hanaoka teaches the device of claim 1, wherein the direction determining means comprise a gyroscope. (Hanaoka, Column 5, Lines 30-36)
Analysis is analogous to that made in Claim 1.

9. As per Claim 7, Saund in view of Kubo and Hanaoka teaches the device of claim 1, wherein the direction determining means comprise a sensor adapted to estimate the path already taken by the device moving on the large surface. (Saund, Column 9, Lines 3-18)
Analysis is analogous to that made in Claim 1.

10. As per Claim 8, Saund in view of Kubo and Hanaoka teaches the device of claim 1, further comprising a memory adapted to store an image to be transferred on the large surface. (Saund, Figure 1, Component 110 and Column 1, Lines 63-65)
Analysis is analogous to that made in Claim 1.

11. As per Claim 9, Saund in view of Kubo and Hanaoka teaches the device of one claim 1, that wherein the dye transferring means comprise an ink jet device. (Saund, Column 2, Lines 14-16, paint jet is analogous to that ink jet)

Analysis is analogous to that made in Claim 1.

12. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saund USPN 6517266 and in view of Kubo et al. USPN 6460958 hereinafter referred to as Kubo and Hanaoka USPN 7256900 as applied to Claim 1 and further in view of Anderson US2003/0000463.

13. As per Claim 10, Saund in view of Kubo and Hanaoka teaches the device of claim 1. Saund in view of Kubo and Hanaoka does not teach wherein the dye transferring means comprise a paint jet device; However Anderson teaches it. (Anderson, Paragraph [0011])

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Anderson into Saund in view of Kubo and Hanaoka. Saund teaches the dye transferring means comprises an ink jet device. The device taught by Anderson could use print with many forms of liquids such as paint and ink. To cover a large surface area, it might be more efficient to use paint instead of ink. It would have been obvious for one of ordinary skill to interchange the ink for paint. Saund and Anderson are in the analogous art of printing.

Therefore it would have been obvious to one of ordinary skill to combine the four references to obtain the invention in Claim 10.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MING HON whose telephone number is (571)270-5245. The examiner can normally be reached on Mon- Fri 7:30 to 5:00 EST; 1st Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on (571)272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. H./
Examiner, Art Unit 2625

/Mark K Zimmerman/
Supervisory Patent Examiner, Art Unit 2625